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Applicant: Vock et al.)	Date: March 6, 2006
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Serial No.: 09/607,678)	Examiner: M. Charioui
)	
Filed: June 30, 2000)	Group Art Unit: 2857
)	
)	Title: EVENT AND SPORT PERFORMANCE METHODS AND SYSTEMS

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Justine Allison

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**REQUEST FOR RESTATEMENT OF APPEAL
AND SUPPORTING APPEAL BRIEF, 37 C.F.R. §1.193(b)**

Dear Sir:

In accord with 37 CFR §1.192 (rules which apparently still apply since this brief is filed before new appeal brief rules commenced and since Examiner refers to such rules), and responsive to the Official Action of November 4, 2005, Appellants hereby file their appeal brief in support of their supplemental Appeal in the above-identified matter. A notice of appeal was filed October 1, 2004. Three copies of this brief are enclosed, as required under 37 CFR §1.192(c). A one month extension of time is included herewith, to extend the period of response to and including March 6, 2006 (today), since March 4th was a Saturday.

- (1) Real party in interest.** The real party of interest is PhatRat Technology, Inc., a Delaware corporation, with an office location of 8408 Brittany Place, Niwot, Colorado 80503; the full right, title, and interests in this application and accorded to PhatRat Technology are illustrated by way of fully-executed assignments executed on May 4, 2000 and recorded with the U.S. Patent and Trademark Office (at reel/frame 011142/0749).
- (2) Related appeals and interferences.** There are no related appeals or interferences.
- (3) Status of claims.** Claims 21-34 are pending in this application, with claim 21 being independent. Applicants appeal all claims 21-34. Claims 21, 27-31 stand rejected under 35 U.S.C. §103 as being unpatentable over U.S. Patent No. 6,148,271 ("Marinelli") in view of U.S. Patent No. 6,002,455 ("Enomoto"). Claim 22 stands rejected as being unpatentable, under 35 U.S.C. §103(a), over Marinelli in view of Enomoto and U.S. Patent No. 6,292,213 ("Jones"). Claim 23-24 stand rejected as being unpatentable, under 35 U.S.C. §103(a), over Marinelli in view of Enomoto and U.S. Patent No. 5,023,727 ("Boyd"). Claim 25 stands rejected as being unpatentable, under 35 U.S.C. §103(a), over Marinelli in view of Enomoto, Boyd and U.S. Patent No. 5,993,335 ("Eden"). Claim 26 stands rejected as being unpatentable, under 35 U.S.C. §103(a), over Marinelli in view of Enomoto and U.S. Patent No. 6,430,453 ("Shea"). Claim 32-34 stand rejected as being unpatentable, under 35 U.S.C. §103(a), over Marinelli in view of Enomoto and U.S. Patent No. 6,163,021 ("Michelson").
- (4) Status of amendments.** This application was filed on June 30, 2000, with claims 1-34. A first office action (including restriction requirement) was mailed August 14, 2002, to which a response was filed and entered January 14, 2003, including the cancellation of claims 1-20 and amendments of 21, 22-23 and 26. A final office action was mailed April 14, 2003, rejecting all claims; and then an RCE was filed September 8, 2003, amending claims 23-24, 26-28, 31. A non-final office action was mailed October 16, 2003 and a response to this office action was filed

February 17, 2004, amending only the single independent claim 31. On March 17, 2004, the response of February 2004 was re-filed to include a recitation of all claims, pursuant to a notice of non-compliance mailed March 8, 2004. A final rejection was mailed on June 1, 2004, to which the notice of appeal was filed October 1, 2004. An appeal brief was filed on January 3, 2005. The Examiner's reply was a new office action, mailed April 7, 2005, which prompted a supplemental appeal brief, filed May 23, 2005. The Examiner's second reply was a new office action, mailed November 4, 2005, which prompted this supplemental appeal brief. All amendments are deemed entered as reflected in the set of claims included as an appendix hereto.

(5) Summary of the invention. The inventions of claims 21-34 relate to an event system including a base station that displays at least one performance metric. One or more mobile sensing units attach with participants in a sporting event; these units sense and then wirelessly transmit data indicative of the performance metric to at least one relay units, which in turn wirelessly relay the data to the base station. The system is for example useful in a snowboarding competition involving a jump over a snow mound. In this example, a sensing unit attaches to the snowboard of each participant in the competition. That sensing unit determines an "airtime" event (as an example of the performance metric) when the participant jumps at the snow mound; it then wirelessly transmits data of the performance metric. A relay unit is nearby to the snow mound and captures the wireless data from the sensing unit; it then relays that data to the base station (or relays the data to another relay unit (see claims 23, 24) if the base station is far away). The base station is located, for example, with the judges; it may include a display device (claim 27) so that judges can see, in near real time, how much airtime (in this example) each participant had for his or her jump. The base station can connect to a scoreboard (claim 26) so that spectators can also see the data. Other sporting metrics like airtime include, for example, spin, tilt, acceleration, distance, g-force (see claim 28).

(6) Issues.

- A. Whether claims 21, 27-31 are patentable over Marinelli in view of Enomoto, in accord with 35 U.S.C. § 103.
- B. Whether claim 22 is patentable over Marinelli in view of Enomoto and Jones, in accord with 35 U.S.C. § 103.
- C. Whether claims 23-24 are patentable over Marinelli in view of Enomoto and Boyd, in accord with 35 U.S.C. § 103.
- D. Whether claim 25 is patentable over Marinelli in view of Enomoto, Boyd and Eden, in accord with 35 U.S.C. § 103.
- E. Whether claim 26 is patentable over Marinelli in view of Enomoto and Shea, in accord with 35 U.S.C. § 103..
- F. Whether claims 32-34 are patentable over Marinelli in view of Enomoto and Michelson, in accord with 35 U.S.C. § 103.

(7) **Grouping of claims.** Group I consists of claims 21, 27-31. The claims of Group I do not stand or fall together. Group II consists of claim 22. Group III consists of claims 23-24. The claims of Group III do not stand or fall together. Group IV consists of claim 25. Group V consists of claim 26. Group VI consists of claims 32-34. The claims of Group VI do not stand or fall together.

8) **Argument (A).**

Briefly, we must first provide certain legal background for our arguments. In the latest office action, the Examiner has basically "redone" the prior rejections by citing the additional patent of Endomoto. In every case, the Examiner has, in our opinion, used impermissible hindsight in an effort to "reconstruct" applicants' claims. In one case, the Examiner cited four (4) patents in an obviousness rejection of claim 25; in other cases the Examiner has cited three patents, all in different fields of endeavor.

The courts have examiner the exact situation in which we are now forced to respond in Ruiz v. A.B. Chance Co., 69 USPQ2d 1686 (CA FC 2004):

In making the assessment of differences, section 103 specifically requires consideration of the claimed invention "as a whole." Inventions typically are new combinations of existing principles or features. *Envtl. Designs, Ltd. v. Union Oil Co.*, 713 F.2d 693, 698 (Fed. Cir.

1983) (noting that "virtually all [inventions] are combinations of old elements."). The "as a whole" instruction in title 35 prevents evaluation of the invention part by part. Without this important requirement, an obviousness assessment might break an invention into its component parts (A + B + C), then find a prior art reference containing A, another containing B, and another containing C, and on that basis alone declare the invention obvious. This form of hindsight reasoning, using the invention as a roadmap to find its prior art components, would discount the value of combining various existing features or principles in a new way to achieve a new result - often the very definition of invention.

Section 103 precludes this hindsight discounting of the value of new combinations by requiring assessment of the invention as a whole. This court has provided further assurance of an "as a whole" assessment of the invention under § 103 by requiring a showing that an artisan of ordinary skill in the art at the time of invention, confronted by the same problems as the inventor and with no knowledge of the claimed invention, would select the various elements from the prior art and combine them in the claimed manner. In other words, the examiner or court must show some suggestion or motivation, before the invention itself, to make the new combination. See *In re Rouffet*, 149 F.3d 1350, 1355-56 (Fed. Cir. 1998).

The Examiner has not, in our opinion, considered the invention of any claim 21-34 as a whole. Moreover, the Examiner has cited patents that are clearly non-analogous. For example, Enomoto concerns a digital data transmission apparatus that incorporates start and end synchronization. Enomoto does not suggest or otherwise promote use within an event system as claimed. With the possible exception of Marinelli, in fact none of the other patents can reasonably be considered analogous to the present claims. And then Marinelli relates to a single measuring device but in no way suggests or teaches an event system as claimed.

With this background, we now contend that the cited art does not render Group I claims 21, 27-31 *prima facie* obvious. The following is a quotation of from the MPEP setting forth the three basic criteria that must be met to establish a *prima facie* case of obviousness:

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the references or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

MPEP, §2142, citing *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Marinelli and Enomoto do not teach every element of claims 21, 27-31. Again, at least Enomoto is also clearly not analogous art. Claim 21 requires the following elements:

- (A) a base station for displaying at least one performance metric;
- (B) one or more mobile sensing units for attachment with participants in a competitive event and for transmitting wireless data representing at least one performance metric; and
- (C) at least one relay unit for receiving the wireless data representing at least one performance metric from the sensing units and for wirelessly transmitting said received data to the base station.

Marinelli discloses a speed, spin rate and curve measuring device. According to Marinelli, "the invention comprises two main parts: object unit 100 and monitor unit 108." Col. 4, lines 39-40. As in a previous rejection, the Examiner has essentially cited monitor unit 108 two times relative to the elements of claim 21. That is, the Examiner correlates monitor unit 108 to a "base station" in element A of claim 21, then the object unit 100 to the sensing unit(s) of element B of claim 21, then, again, the monitor unit 108 as the relay unit of element C of claim 21. But, that is impossible. The relay unit of claim 21 wirelessly receives wireless data from the sensing units and then wirelessly communicates with the base station. The Examiner apparently is saying, then, that Marinelli's monitor unit 108 communicates with itself wirelessly.

Specifically, the Examiner says the following: "Marinelli teaches a base station...one or more sensing units....and at least one relay unit. Therefore the Examiner is stating that Marinelli discloses three (3) "units" to perform the elements of claim 21; *and this is absolutely not true*. We believe that the Examiner's error lies in his review of col. 2, lines 47-52, which clearly states that a reflection may occur between Marinelli's monitor unit and the object unit. However this is NOT a relay unit as cited in claim 21; the relay unit as in the claims and text of the present application is separate from the mobile sensing units.

It is then very unclear why the Examiner continues to state that Marinelli does not teach the relay unit. First the Examiner says Marinelli does teach the relay unit (page 2, last line to page 3, first two lines) and then he says Marinelli does not teach a relay unit (page 3, third and

fourth lines). Frankly, it is exceedingly difficult and unreasonable for us to respond to both of the Examiner's assertions.

In any event, the Examiner then throws in Enomoto as disclosing a relay unit. But, as previously noted, Enomoto discloses a digital data transfer apparatus that has nothing to do with an event system that uses mobile sensors and a base station. Moreover, Marinelli also does not disclose *multiple mobile sensors* and a single base station. Rather, Marinelli just discloses a device that measures, for example, speed of a single ball or puck using a sensor and receiver (single sensor, single receiver).

Our argument is that Marinelli and Enomoto do not disclose the features of claim 21 and are anyway improperly combined per the Ruiz court case (among many dozen other court cases). Marinelli and Enomoto then simply cannot render claim 21 obvious under 35 U.S.C. §103.

Note further that Marinelli's object unit attaches to objects, not persons as in claim 21. Marinelli also does not disclose multiple units used in concert during competitive events (or even a competitive event), also as in claim 21. Endomoto does not suggest how its digital transmission apparatus might be useful in the system of Marinelli; Marinelli does not suggest how it might be useful to use a digital transmission apparatus of Endomoto might be useful as a relay unit. In fact, the combination of Endomoto and Marinelli simply do not make sense. The requirements of 35 U.S.C. §103 requires otherwise:

First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the references or to combine reference teachings. Second, there must be a reasonable expectation of success.

It is our opinion that Marinelli and Endomoto fail both of these requirements.

Claims 27-31 depend from claim 21 and benefit from like arguments. But these claims have additional reasons for patentability. For example, in claim 27, the base station has a display, wherein the base station displays the at least one performance metric on the display device. This claim too begins "further comprising" and yet the Examiner now again contends that the display device of Marinelli, col. 2, lines 53-65, is the same. However this again relates to the same

monitor unit 10; Marinelli does not disclose a base station display (or even a base station) in the context of claim 21.

In claim 28, the performance metric is at least one selected from the group of rotation, spin, tilt, leaning, acceleration, speed, edge time, distance, drop distance, airtime and g-force. Marinelli and Endomoto do not disclose these features in the context of claim 21 (because they do not disclose, at least, the elements of claim 21).

In claim 29, the performance metric includes a rotation rate or total rotation. However, in the context of claim 21 this too is not disclosed by Marinelli.

In claim 30, the performance metric includes a rotation component. Again, Marinelli and Endomoto do not disclose these features in the context of claim 21 (because they do not disclose, at least, the elements of claim 21).

In claim 31, an accelerometer is disclosed. Marinelli has an accelerometer too -- but it is unrelated to the context of claim 21. For example, Marinelli and Endomoto do not teach or suggest a relay unit and a base station, at least, as in claim 21.

Argument (B).

We contend that the cited art does not render Group II claim 22 *prima facie* obvious. Again, the following is a quotation of from the MPEP setting forth the three basic criteria that must be met to establish a *prima facie* case of obviousness:

To establish a *prima facie* case of obviousness, three basic criteria must be met.

First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the references or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

MPEP, §2142, citing *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Endomoto is, again, non-analogous art (for example, claim 22 recites a camera!). In particular, claim 22 comprises at least one camera for capturing at least one image and sending data representing said at least one image to the base station. We have argued why Marinelli and

Endomoto not teach or suggest claim 21; claim 22 depends from claim 21 and, similarly, Marinelli and Endomoto cannot disclose elements of claim 22. Jones discloses a micro video camera; it has no suggestion or motivation to combine with Marinelli and/or Endomoto.

Specifically, the combination of Endomoto, Jones and Marinelli still does not teach or suggest the elements of claim 22. Second, there is no reasonable chance of success in combining these three patents since the result is not, by a long shot, the invention of claim 22 (including the elements of claim 21). The Examiner's combination is again exactly the kind of hindsight combination prohibited by U.S. Courts in the Ruiz case (see citation above).

Argument (C).

We contend that the cited art does not render Group III claims 23-24 *prima facie* obvious.

Again, Marinelli and Endomoto do not teach the elements of claim 21. See above arguments. The Examiner now again asserts that Marinelli discloses one relay unit but not two. This reasoning is not understandable, again, in the context of the Examiner's claim 21 arguments wherein Marinelli has one but also no relay unit!

Anyway, the Examiner cites Boyd by asserting that Boyd disclosing two or more relay units. But, Boyd is not analogous art – by a long shot; it concerns a system for producing a substantially continuous composite signal. Moreover, the combination of Marinelli, Endomoto with Boyd still does not disclose the elements of claim 21. Not only is the hindsight combination of Endomoto, Boyd with Marinelli improper, the combination does not teach or suggest all the elements of claim 21.

Nor does the combination then teach the elements of claims 23-24. These two claims require a plurality of relay units (claim 23); in claim 24, the relay units are adjacent to an event area (e.g., where participants jump or create performance metrics like airtime). Marinelli, Endomoto and/or Boyd simply do not have any teaching of these features. Further, we must ask the Examiner to support the allegation that "it would be obvious to one having ordinary skill....to incorporate Boyd ... into Marinelli's invention because it would provide two relays...to the base station." We cannot disagree more and we are entitled to a better explanation (evidence) for this unreasonable allegation pursuant to MPEP §2144.

Argument (D).

We contend again that the cited art does not render Group IV claim 25 *prima facie* obvious.

Group IV claim 25 depends from claim 21 and benefit from like arguments. Specifically, again, Marinelli and Endomoto cannot teach or suggest the elements of claim 21. Like the other hindsight combinations cited by the Examiner, Eden is seemingly cited merely because it discloses a game (a rollercross game). Eden is not reasonably analogous art. But more importantly the combination of Marinelli, Endomotor with Boyd and Eden simply does not disclose the elements of claim 21 and its dependent claim 25. Where for example is the "half pipe" disclosed in claim 25? It is nonexistent in the cited art.

We also again ask for evidence pursuant to MPEP §2144 that supports the Examiner's allegation, again, that the combination of the art of Marinelli, Boyd and Eden is somehow obvious to a skilled artisan. We cannot disagree more. The current rejection is blatant hindsight.

Argument (E).

We contend that the cited art does not render Group V claim 26 *prima facie* obvious.

Group V claim 26 depends from claim 21 and benefit from like arguments. Specifically, again, Marinelli and Endomoto cannot teach or suggest the elements of claim 21. Like the other hindsight combinations cited by the Examiner, Shea is seemingly cited merely because it discloses a bowling game system using "scores". Shea is not reasonably analogous art. But more importantly the combination of Marinelli, Endomoto with Shea simply does not disclose the elements of claim 21 and its dependent claim 26 (which requires a "scoreboard").

We also again ask for evidence pursuant to MPEP §2144 that supports the Examiner's allegation, again, that the combination of the art of Marinelli, Endomoto and Shea is somehow obvious to a skilled artisan. We cannot disagree more. The current rejection is, again, mere hindsight and impermissible combining under 35 U.S.C. §103. See, again, *Ruiz* decision.

Argument (F).

We contend that the cited art does not render Group VI claims 32-34 *prima facie* obvious.

First, again, Marinelli does not teach the elements of claim 21. See above arguments. The Examiner cites Michelson as disclosing magnetic spin sensors. But, Michelson is not analogous art; it concerns a navigation system for spinning projectiles. Moreover, the combination of Marinelli, Endomoto with Michelson still does not disclose the elements of claim 21. Not only is the hindsight combination of Marinelli with Michelson improper, the combination does not teach or suggest all the elements of claim 21.

Nor does the combination then teach the elements of claims 32-34. In claim 32, for example, the sensing unit includes at least one magnetic field sensing device; it is true that Mickelson discloses a magnetic spin sensor, but Mickelson, Endomoto and Marinelli still do not teach the elements of claim 32, including elements of claim 21. The combination also fails to disclose:

- the sensing unit further includes one or more pitch and roll sensors (claim 33).
- the sensing unit includes one or more magnetic field sensing devices indicating 3 axes of rotation (claim 34).

(9) Appendix. Appellants enclose a copy of the claims involved in this appeal as an appendix hereto.

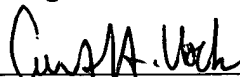
Conclusions

Accordingly, Applicants respectfully submit that the claims Groups I-VI patentably distinguish over the art of record. No further fees are deemed due in connection with this matter. However, the Commissioner is hereby authorized to charge any fees which may be due in this matter from Deposit Account Number 12-0600.

Respectfully submitted,

Lathrop & Gage L.C.

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March 6, 2005

APPENDIX TO APPEAL BRIEF

21. (Previously amended) An event system comprising:
a base station for displaying at least one performance metric;
one or more mobile sensing units for attachment with participants in a competitive event
and for transmitting wireless data representing at least one performance metric;
and
at least one relay unit for receiving the wireless data representing the at least one
performance metric from the sensing units and for wirelessly transmitting said
received data to the base station.
22. (Previously amended) The system of claim 21, further comprising at least one
camera for capturing at least one image and sending data representing said at least one image to
the base station.
23. (Previously amended) The system of claim 21, wherein the at least one relay unit
includes at least two relay units.
24. (Previously amended) The system of claim 23, wherein the at least two relay units
are located proximate to an event area.
25. (Original) The system of claim 24, wherein the event area is a half pipe event
area.
26. (Previously amended) The system of claim 21, further comprising a scoreboard,
and wherein the base station displays the at least one performance metric on the scoreboard.

27. (Previously amended) The system of claim 21, further comprising a display device electrically coupled to the base station, and wherein the base station displays the at least one performance metric on the display device.

28. (Previously amended) The system of claim 21, wherein the performance metric is at least one selected from the group of rotation, spin, tilt, leaning, acceleration, speed, edge time, distance, drop distance, airtime and g-force.

29. (Original) The system of claim 21, wherein the performance metric includes a rotation rate or total rotation.

30. (Original) The system of claim 21, wherein the performance metric includes a rotation component.

31. (Original) The system of claim 30, wherein the sensing unit includes an accelerometer.

32. (Original) The system of claim 30, wherein the sensing unit includes at least one magnetic field sensing device.

33. (Original) The system of claim 32, wherein the sensing unit further includes one or more pitch and roll sensors.

34. (Previously amended) The system of claim 30, wherein the sensing unit includes one or more magnetic field sensing devices indicating 3 axes of rotation.